	Application No.	Applicant(s)
Notice of Allowability	10/509,038	FINN ET AL.
	Examiner	Art Unit	
	Mujtaba K. Chaudry	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to _5/22/2006_.

2. ☒ The allowed claim(s) is/are _6-16_.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None of the:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
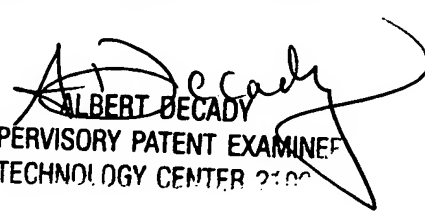
    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

      Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _5/22/2006_

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

6/28/06

REASONS FOR ALLOWANCE

Claims 6-16 are allowed. The following is an Examiner's statement of reasons for allowance:

Independent claim 6 of the present application teaches a method for decoding a data sequence of K information bits encoded with aid of binary convolutional code, comprising: calculating in a first operation, on a trellis diagram having trellis segments, first metric values of all trellis segments for a forward direction and for a backward direction using a MaxLogMap algorithm without a decoding window; selecting a first set of trellis segments as first interpolation nodes from the first operation; storing first associated metric values for the first set of trellis segments in a first memory level; iteratively performing a number of n operations until the metric values for the forward direction and for the backward direction meet in one trellis segment, including: calculating in an ith operation for $1 < i < = n$, ith metric values of internodal trellis segments positioned between the interpolation nodes of an ith operation for the forward and backward directions using stored metric values of interpolation nodes of the ith operation; selecting an ith set of trellis segments as ith interpolation nodes from the ith operation; and storing ith associated metric values for the ith set of trellis segments in an ith memory level; and carrying out a decision process to calculate soft output values for decoding. The foregoing limitations are not found in the prior arts of record. Particularly, none of the prior arts of record teach nor fairly suggest to calculate, "…first metric values of all trellis segments for a forward direction and for a backward direction using a MaxLogMap algorithm *without a decoding window*; selecting a first set of trellis segments as first interpolation nodes from the first operation; storing first associated metric values for the first set of trellis segments in a first memory level; iteratively performing a number of n operations until the metric values for the

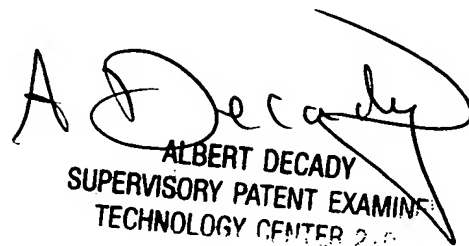forward direction and for the backward direction meet in one trellis segment, including:

calculating in an ith operation for $1 < i < = n$, ith metric values of internodal trellis segments positioned between the interpolation nodes of an ith operation for the forward and backward directions using stored metric values of interpolation nodes of the ith operation."

Dependent claims 7-16 depend from allowable independent claim 6 and inherently include limitations therein and therefore are allowed as well.

Any inquiries concerning this communication should be directed to the examiner, Mujtaba Chaudry who may be reached at 571-272-3817. The examiner may normally be reached Mon – Thur 6:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, Albert DeCady at 571-272-3819.

Mujtaba Chaudry
Art Unit 2133
June 28, 2006

ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2